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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/770,724	02/03/2004	James E. Chomas	2003P14530US	2282

7590 10/20/2006

Siemens Corporation
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EXAMINER	
JAWORSKI, FRANCIS J	
ART UNIT	**PAPER NUMBER**
3768	

DATE MAILED: 10/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/770,724	CHOMAS ET AL.	
	Examiner	Art Unit	
	Jaworski Francis J.	3768	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 July 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12,14-23 and 25-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *12,14-23,25 and 27* is/are allowed.

6)☒ Claim(s) *1-11 and 26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1 – 8, 11, 26 are again rejected under 35 U.S.C. 103(a) as being unpatentable over Grenon (US6258033) alone or further in view of Sasaki et al (US5469849).

Grenon is directed to ultrasound quantitative tissue perfusion measurements using contrast agents, where since both the organ under study and the contrast agent used can affect the contrast stability model or CSM in the linear/non-linear/agent destruct modes and therefore demand different imaging parameters including therefore when destroying contrast agents, hence when initiating a procedure, receive

parameters including receive gain are adjusted during an NROI (Normalization ROI)-based calibration phase for enactment of an IROI (investigational ROI) –based quantified measurement phase.

Grenon further states that the adaptive normalization process (as detailed in Col. 6 incl. lines 46 – 48)) allows the system to 'automatically adjust system parameters for the visualization of that organ..' (col. 5 lines 46 – 48. It therefore appears that with respect to the variable of the organ under study, the normalization adjustment of system gain setting (or transmit level or agent infusion rate) is automatic insofar as the reference literally says so. In the case of the contrast agent selection variability, the control is said to be 'manual..' (col. 6 lines 42 – 51) and elsewhere the agent infusion setting is intimated to be automatic, see col. 7 lines 30-36. Since these variables would be expected to change when organ or agent or agent inflow rate has changed then it becomes inherently obvious to re-normalize should this occur during the overall imaging session. Otherwise Grenon is interpretable as pertaining to normalizing free of user input and with inaccessibility to change inputs at least during the iterative computations of normalization.

In the alternative, if one interprets that the contrast agent-variation gain is manually set in Grenon, it would have been obvious nonetheless in view of Sasaki et al per discussion of the Information Mode in cols. 3 – 5 esp. col. 5 lines 15 – 45 to adjust image brightness automatically based on contrast agent type and concentration/amount in Grenon since Sasaki et al evidence that one need merely inform the ultrasound system of the relevant data in order for it to exercise automatic gain controls. Again,

repeat operation is pre-supposed since different modes 25A-D are possible and one might be expected to repeat a quantification measurement if the initial concentration/amount of contrast agent were insufficient for example, whereupon the automatic gain calibrations of both references would be invoked.

Otherwise time-density curves sought in both references include a wash-in/washout phase.

Since the NROI and the IROI are mutually exclusive but both contain blood, claim 11 is met by the aforementioned repetition of calibrations and mode changes.

Allowable Subject Matter

Claims 9 – 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims12, 14 – 23, 25 and 27 are allowed.

Response to Arguments

Applicants arguments regarding inapplicability of Grenon et al with respect to the base claim are not well taken since Grenn et al in suggesting that contrast agent stability is agent variant and time variant would be expected to repeat the automatic calibrations if a 're-take'of the session for example is necessary.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Response to Arguments

Any inquiry concerning this communication should be directed to Jaworski Francis J. at telephone number 571-272-4738.

FJJ:fjj

12-10-06

Francis J. Jaworski
Primary Examiner